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EXAMINER

POLLACK, MELVIN H

ART UNIT

PAPER NUMBER

2145

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,603

Applicant(s)

JOSEPH ET AL

Examiner

Melvin H. Pollack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- . Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/2/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: see attached office action.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Gregorat (6,327,243).
3. For claim 1, Gregorat teaches a network system (abstract; col. 1, line 1 - col. 3, line 60) comprising:
 - a. A network interface (Fig. 2, #204, in view of Fig. 1, #111) connected to a first network (Fig. 1, #105);
 - b. A primary switch connected to the network interface (Fig. 2, #201);
 - c. A secondary switch connected to the network interface (Fig. 2, #251); and
 - d. A second network connected to both the primary switch and the secondary switch ((Fig. 1, #113 in view of col. 4, lines 15-30);
 - e. Wherein packet-switched data is transferred between the network interface and the second network across the primary switch if the primary switch is operable (col. 5, lines 55-60), and the packet-switched data is transferred between the network interface and the second network across the secondary switch if the primary switch is inoperable (col. 7, line 45 – col. 8, line 20, in view of Fig. 3).

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4. For claim 2, Gregorat teaches a selection switch connected to the network interface, the primary switch, and the secondary switch (Fig. 2, #206), wherein the selection switch enables the packet-switched data to be transferred across the primary switch and the secondary switch (col. 4, lines 55-65; col. 5, lines 20-23).

5. For claim 6, Gregorat teaches a first link connecting the primary switch to the second network (col. 4, lines 30-55).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claim 2 above, and further in view of Eng et al. (6,810,008).

8. For claim 3, Gregorat does not expressly disclose a route server connected to the selection switch, wherein the route server controls the functioning of the selection switch. Gregorat does disclose, however, the decision process of determining the route and switches to travel to, as well as motivation for a controlling route server in order to perform traffic load balancing (col. 4, lines 40-67). Gregorat further discloses that the switch may contain additional circuitry (col. 5, lines 5-15). Eng teaches a method (abstract) of utilizing redundant switches (col. 1, line 1 – col. 3, line 55) such that the switches (Fig. 3, #350-380) comprise a route server (packet engine) for controlling the route (col. 4, lines 35-55) and further for rerouting to a backup switch (col. 5, lines 1 – 55). At the time the invention was made, one of ordinary skill in the art

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would have added Eng route server techniques to Gregorat in order to fulfill Gregorat's desired load balancing techniques above, and further to reduce latency in swichover cases (col. 2, lines 55-60).

9. Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claim 1 above, and further in view of Bartfai et al. (6,012,150).

10. For claim 4, Gregorat teaches a controller connected to the primary switch (Fig. 2, #210) that determines if the primary switch is operable (Fig. 3, #305), but does not expressly disclose determination via a heartbeat mechanism. Bartfai teaches a method (abstract) of handling primary and backup nodes (col. 1, line 1 – col. 2, line 60), wherein a backup node is determined to have failed via a heartbeat measurement (col. 3, line 45 – col. 4, line 13). At the time the invention was made, one of ordinary skill in the art would have provided Bartfai's operability determination mechanism in order to implement the Gregorat method and further to provide a backup mechanism for swichover in the event that the primary controller itself should fail (col. 4, lines 60-65).

11. For claim 5, Gregorat teaches that the controller deactivates the primary switch if the primary switch is inoperable (Fig. 3, #310).

12. Claims 7, 12, 15, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claims 1, 6 above, and further in view of Baskey et al. (6,148,410).

13. For claims 7, 15, Gregorat teaches that the packet-switched data is transferred across the primary switch if the first link is operable (col. 5, line 55 – col. 6, line 6), and the packet-

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switched data is transferred across the secondary switch if a failure occurs (col. 4, lines 55-65), but does not expressly disclose what said failure might comprise. Specifically, Gregorat does not expressly disclose that the failure occurrence is that the first link is inoperable. Baskey teaches a method (abstract) of providing redundant devices in a Gregory-like manner (col. 1, line 1 – col. 2, line 15), wherein failure recovery includes recoverable links (col. 5, lines 5-40) and further wherein a switchover system may be utilized in order to perform recovery of a failed link (col. 11, line 50 – col. 13, line 10). At the time the invention was made, one of ordinary skill in the art would have used the failure recovery methods of Baskey in order to determine failure definitions and recovery methods for Gregorat and further to ensure recovery from reach-ability failures (col. 1, lines 60-65).

14. For claim 12, Gregorat does not expressly disclose that the packet-switched data comprises Internet protocol packets, but does disclose that the packet may utilize a wide variety of protocols (col. 1, lines 30-31). Baskey teaches that the packets are IP packets (col. 1, lines 15-20). At the time the invention was made, one of ordinary skill in the art would have used Baskey IP packets in Gregorat in order to improve client-server requesting methods (col. 1, line 15).

15. Claim 22 is drawn to the limitations in claim 12. Therefore, since claim 12 is rejected, claim 22 is also rejected for the reasons above.

16. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claim 6 above, and further in view of Popovich (6,771,593).

17. For claim 8, Gregorat does not expressly disclose that the first link comprises optical fiber. Gregorat remains silent in regards to the physical type of link. Popovich teaches a method

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(abstract) of providing redundant nodes for failure handling (col. 1, line 1 – col. 2, line 60) in which nodes are interconnected via fiber optic lines (col. 3, line 50; col. 9, line 20). At the time the invention was made, one of ordinary skill in the art would have used fiber optic lines in a Gregorat system in order to determine details necessary to implement Gregorat and further because the speed of optical connections is well known in the art.

18. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat and Popovich as applied to claim 8 above, and further in view of Thomas et al. (US 2003/0086140).

19. For claim 9, Gregorat and Popovich do not expressly disclose a laser utilized for transmitting the packet-switched data along the first link is deactivated if at least one of the primary switch and first link are inoperable. Gregorat does, however, teach that signals to the primary controller are disconnected (col. 5, lines 57-63; col. 7, lines 45-65), and that signals along the first link are deactivated (see above). Popovich does not expressly disclose how a fiber-optic network operates. Thomas teaches a method (abstract) of monitoring a fiber optic network (Paras. 1-24) in which signals are activated to transmit data and deactivated when data transmission stops (Paras. 54-68, 81, 82, 84). Thus, when Gregorat performs the link deactivation signal, the laser is deactivated. At the time the invention was made, one of ordinary skill in the art would have used Thomas as a reference for designing a fiber-optic network (Para. 3).

20. For claim 10, Gregorat and Popovich do not expressly disclose a laser utilized for transmitting the packet-switched data along the first link is explicitly deactivated if maintenance operations are to be performed on at least one of the primary switch and first link. As shown

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above, Gregorat does disclose the link deactivation, and further discloses that it is explicit(Fig. 3, #305). Popovich does not expressly disclose how a fiber-optic network operates. Thomas teaches a method (abstract) of monitoring a fiber optic network (Paras. 1-24) in which signals are activated to transmit data and deactivated when data transmission stops (Paras. 54-68, 81, 82, 84). Thus, when Gregorat performs the link deactivation signal, the laser is deactivated. At the time the invention was made, one of ordinary skill in the art would have used Thomas as a reference for designing a fiber-optic network (Para. 3).

21. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat and Popovich as applied to claims 1, 8 above, and further in view of Farris et al. (6,154,445).

22. For claim 11, Gregorat does not expressly disclose that the network interface comprises a digital signal processing card for converting between circuit-switched data and the packet-switched data. Popovich teaches that the device supports voice and data communications (col. 1, lines 25-30; col. 3, lines 60-67) and that a call may be converted into data (col. 5, line 40 – col. 6, line 10), but does not expressly disclose that a card performs the process. Farris teaches a method (abstract) of combining voice and data networks to maximize connection availability (col. 1, line 1 – col. 6, line 30) wherein a digital line card packetizes voice data (col. 11, lines 15-30). At the time the invention was made, one of ordinary skill in the art would have added Farris teachings to implement Popovich and further to provide stronger reliability for Gregorat communications (col. 6, lines 10-20).

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23. Claims 13, 14, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claim 1 above, and further in view of Coile et al. (6,108,300) and Baskey et al. as applied to claims 7, 15 above.

24. For claim 13, Gregorat does not expressly disclose that the second network comprises a primary router, but does allow for connections to any end-user device (col. 4, lines 15-45). Coile teaches a method (abstract) of providing generic networking devices (col. 1, line 1 – col. 4, line 25) in which the device may be any network device (col. 5, lines 5-15 and 30-40) provided it communicates with a switch (col. 7, lines 15-25; col. 10, lines 25-50). Baskey teaches routers that fulfill Coile's networking device definition (col. 2, line 45 – col. 3, line 40). At the time the invention was made, one of ordinary skill in the art would have added Coile and Baskey to Gregorat in order to allow Gregorat switches to access a WAN and connect to multiple systems (col. 1, lines 5-10).

25. For claim 14, Gregorat and Coile do not expressly disclose that the second network further comprises a secondary router, the packet-switched data is transferred between the network interface and the primary router if the primary router is operable, and the packet-switched data is transferred between the network interface and the secondary router if the primary router is inoperable. Baskey teaches these limitations (col. 2, line 45 – col. 3, line 40). At the time the invention was made, one of ordinary skill in the art would have added Coile and Baskey to Gregorat in order to allow Gregorat switches to access a WAN and connect to multiple systems (col. 1, lines 5-10).

26. Claims 18-20 are drawn to the limitations in claim 14. Therefore, since claim 14 is rejected, claims 18-20 are also rejected for the reasons above.

27. Claims 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat and Baskey as applied to claim 15 above, and further in view of Bartafi, as applied to claim 5 above, and Thomas, as applied to claim 9 above.

28. Claim 16 is drawn to the limitations in claims 5 and 9. Therefore, since claims 5 and 9 are rejected, claim 16 is also rejected for the reasons above.

29. Claim 17 is drawn to the limitations in claim 9. Therefore, since claim 9 is rejected, claim 17 is also rejected for the reasons above.

30. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat and Baskey as applied to claim 15 above, and further in view of Popovich and Farris, as applied to claim 11 above.

31. Claim 21 is drawn to the limitations in claim 11. Therefore, since claim 11 is rejected, claim 21 is also rejected for the reasons above.

32. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat and Baskey as applied to claim 15 above, and further in view of Bartfai, as applied to claim 4 above.

33. Claim 23 is drawn to the limitations in claim 4. Therefore, since claim 4 is rejected, claim 23 is also rejected for the reasons above.

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34. Claims 24, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claims 1, 2 above, and further in view of Eng, as applied to claim 3 above, and Bartfai as applied to claim 4 above, and Popvich and Farris as applied to claim 11 above.

35. Claim 24 is drawn to the limitations in claims 1-4 and 11. Therefore, since claims 1-4 and 11 are rejected, claim 24 is also rejected for the reasons above.

36. Claim 27 is drawn to the limitations in claim 4. Therefore, since claim 4 is rejected, claim 27 is also rejected for the reasons above.

37. Claims 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregorat as applied to claims 1, 2 above, and further in view of Eng, as applied to claim 3 above, and Bartfai as applied to claim 4 above, and Popvich and Farris as applied to claim 11 above, and further in view of Coile and Baskey as applied to claims 12-14 above.

38. Claim 25 is drawn to the limitations in claims 12 and 13. Therefore, since claims 12 and 13 are rejected, claim 25 is also rejected for the reasons above.

39. Claim 26 is drawn to the limitations in claim 14. Therefore, since claim 14 is rejected, claim 26 is also rejected for the reasons above.

Information Disclosure Statement

40. The information disclosure statement filed 5/2/02 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information

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referred to therein has not been considered. The NPL item #32 (J. Postel, (1980), "User Datagram Protocol," RFC 768: 1-3) is missing.

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They detail further information regarding redundant systems and voice-data systems and optical fiber systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal D. Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
30 September 2005


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SUPERVISORY PATENT EXAMINER